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# Biotechnology Notes

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**Biotechnology Notes**, a compilation of agency activities, news events, and upcoming meetings, is prepared for members of the U.S. Department of Agriculture's (USDA) Committee on Biotechnology in Agriculture (CBA) by USDA's Office of Agricultural Biotechnology (OAB).

## INSIDE USDA

### ABRAC PANEL GIVES NOD TO CATFISH STUDY

In a 10-1 vote, members of USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC) passed the following motion concerning Auburn University's request to conduct research on transgenic catfish in confined outdoor ponds: "ABRAC believes that the current proposal adequately ensures safety to human health and the environment for phase III of the proposed project because the confinement design and protocols are sufficient to prevent escape into the environment." Phase III refers to the evaluation and growth performance of the transgenic fish in outdoor ponds.

The ABRAC recommendation will be forwarded to John Patrick Jordan, Administrator of the Cooperative State Research Service (CSRS), the agency which would partly fund the experiment. Jordan's final decision will also take into account recommendations of six fisheries experts and comments from three groups which requested a delay in approving the study until additional data from a previous study become available.

In addition to the catfish proposal, the panel reviewed USDA's proposed Biotechnology Risk Assessment Research Program. The ABRAC said the research topics proposed for the 1992 request for proposals planned by CSRS are adequate. For 1993 the Committee suggests a more thorough priority-setting process.

In other Committee news, the ABRAC formed a working group that would address performance standards for outdoor pond and raceway confinement in aquaculture research. Also, Acting Assistant Secretary for Science and Education, Harry C. Mussman, installed nine new ABRAC members. A. David Kline was selected chairperson and Anne Vidaver, vice-chairperson. The names and affiliations of all ABRAC members are listed on page 8. ABRAC is scheduled to meet again June 10-12, 1992 in Rosslyn, VA.

## FINAL ABRAC RESEARCH GUIDELINES AVAILABLE TO PUBLIC

USDA's ABRAC recently completed a four-year effort to develop guidelines for researchers who are considering moving their research from the laboratory to outdoor field plots. The guidelines are printed as a supplement to the minutes taken at ABRAC's December 3-4, 1991 meeting.

The guidelines were presented on March 5 by the outgoing chairperson, Bennie Osburn, as a recommendation to the Secretary of Agriculture through Harry Mussman, Acting Assistant Secretary for Science and Education.

Copies of "Guidelines for Research Involving Planned Introduction into the Environment of Genetically Modified Organisms" may be obtained from the Office of Agricultural Biotechnology (OAB) by calling 703-235-4419; Fax: 703-235-4429.

## GOSLAR CONFERENCE AGENDA

The Second International Symposium on the Biosafety Results of Field Tests of Genetically Modified Plants and Microorganisms takes place May 11-14, 1992 in Goslar, Germany. The following is an overview of the panels and the participants. The two keynoters will be Roger Hull of the John Innes Institute, Norwich, UK and Bruna Teso, OECD, Paris, France. For more details, call the OAB at 703-235-4419; Fax: 703-235-4429.

### Panel I: Results of Field Tests with Traditionally Modified Plants and Microorganisms

R. Keith Downey, Agriculture Canada, Saskatoon, Saskatchewan, Canada  
Yusuke Kimura, Plantech Research Institute, Yokohama, Japan  
Theo Saat, VanderHave Research, Rilland, The Netherlands  
Dan Kluepfel, Clemson University, Clemson, South Carolina  
Mick Crawley, Imperial College, Ascot, UK

### Panel II: New Biosafety Results of Field Tests with Plants

Zhang-Liang Chen, The China National Laboratory of Plant Genetic Engineering at Peking University, Beijing, China  
Henri Barmency, INRA, Dijon, France  
F. J. Gommers, Wageningen Agricultural University, Wageningen, The Netherlands  
Roger Beachy, The Scripps Institute, La Jolla, CA  
S. Attathom, Kasetsart University, Thailand  
J. Tachmintzis, Commission of the EC, DGXI, Brussels, Belgium  
Phil Dale, Cambridge University, Norwich, UK



Panel III: New Biosafety Results of Field Tests with Microorganisms

Nancy Millis, The University of Melbourne, Australia  
R. D. Possee, NERC Institute of Virology and Environmental Microbiology, Oxford, UK  
Paul-Pierre Pastoret, University of Liege, Brussels, Belgium  
Fred Genthner, U.S. EPA, Gulf Breeze, Florida  
Kornelia Smalla, Biologische Bundesanstalt, Braunschweig, Germany  
G. Stotzky, New York University, New York  
Ioannis Economidis, Commission of the EC, DGXII, Brussels, Belgium

Panel IV: Bioremediation Studies

Darryl Dwyer, Gesellschaft fur Biotechnologische Forschung, Braunschweig, Germany  
Betty Olson, University of California, Irvine, CA  
David J. Drahos, SBP Technologies Inc., Stone Mountain, GA  
Dick Janssen, University of Groningen, Groningen, The Netherlands

Panel V: The Biosafety Aspects of Commercialization

Roy Fuchs, Monsanto Agricultural Company, St. Louis, MO  
Matthew G. Kramer, Calgene Inc., Davis, CA  
Pierre Roger, Laboratoire de Biologie Moleculaire et Cellulaire, Aubiere, France  
Sally McCammon, U.S. Department of Agriculture, Hyattsville, MD

Panel VI: New Information on Food Safety and Effects on Non-Target Organisms

Barend Verachtert, Plant Genetic Systems N.V., Gent, Belgium  
D. A. Toet, Gist Brocades, Delft, The Netherlands  
Charles Daly, National Food Biotechnology Centre, Cork, Ireland  
Min-Ha Pham-Delegue, INRA-CNRS, Bures-sur-Yvette, France  
Eric Flamm, U.S. Food and Drug Administration, Rockville, MD  
D. Jonas, Ministry of Agriculture and Fisheries and Food, London, UK

**MADIGAN AND THE BUDGET**

Secretary of Agriculture Edward Madigan presented USDA's FY 1993 budget at the end of February to the Senate Subcommittee on Appropriations. Included as a top priority on his agenda was the need to "engage the expertise of scientists to develop, in close cooperation with industry, commercially viable new nonfood and nonfeed crops and uses for agricultural commodities." The budget more than doubles resources for funding the biofuels research program and provides funding for food safety, water quality, and

other program areas. Overall, the USDA budget calls for expenditures of \$167.7 million for agricultural biotechnology.

## **NEWS AROUND THE NATION (AND THE WORLD)**

### **ANIMAL WELL-BEING TOPIC OF CENTER RESEARCH**

Texas A&M University's Center for Biotechnology Policy and Ethics is supporting the study of issues related to the ethical and policy aspects of animal biotechnology. In addition, the Center is co-sponsoring a workshop within the National Agricultural Biotechnology Council meeting on "Animal Biotechnology: Challenges and Opportunities" in College Station, Texas, May 27-29. For more information about the workshop or the discussion papers, call 409-845-5434.

### **BIOTECH CLASSES AVAILABLE**

One to three-day classes in molecular biology techniques are available throughout the year at university labs around the country. The classes are sponsored by Biotechnology Training Programs Inc., an Ames, Iowa firm. To receive a schedule, call 515-232-8306.

### **INTERNATIONAL CROP SCIENCE MEETING**

On July 14-22, 2,000 researchers from more than 100 countries will gather at Iowa State University in Ames, Iowa at the first international crops science congress. The meeting will focus on sustainable agriculture, environmental change, biodiversity, crop improvement, and advances in basic crop sciences. The winner of the 1992 world food prize will also be announced at this meeting. The Crop Science Society of America and Iowa State University are organizing the congress. For more details, call Brian Meyer at 515-294-0705.

### **GENOA PROCEEDINGS OFF PRESS**

Italy's National Research Council sponsored a major conference on biotechnology and risk assessment in September 1991 and the 383 abstracts submitted at that meeting have now been published. They are grouped into the following categories: molecular and cellular

engineering, biotechnology diagnostics and innovative vaccines, innovations in fermentation processes, biosensors and bioreactors, biotechnological applications for cell cultures, biopharmacy, and bioinstrumentation. The report includes a list of attendees. To receive a copy please call 39-108-503-38.

## **ETHIOPIA: NEW NEIGHBOR ON THE BIOTECH BLOCK**

Ethiopia is moving forward in its biotechnology research programs despite serious economic, political, and personnel constraints. Although a national biotechnology policy has not yet been formulated, the country has established an Ethiopian Science and Technology Commission to address biotechnology within a framework that cuts across national research institutions.

The Institute of Agricultural Research is Ethiopia's largest center with more than 100 projects underway. These include producing high-yielding plant varieties and developing sustainable farming systems. Most of the biotechnology research is carried out in cooperation with the International Livestock Center of Africa and the Armauer Hansen Research Institute.

At Addis Ababa University, scientists are collecting microorganisms and using plant tissue culture techniques to micropropagate forest trees. Activities at the Plant Genetic Resources Center include the application of biotechnology to seed multiplication, cytogenic research, and nitrogen fixation studies. Other research centers are developing diagnostic tools and DNA probes for leprosy, African sleeping sickness, and other serious tropical diseases that affect humans.

## **NEW MASTER'S PROGRAM**

Johns Hopkins University, Baltimore, MD, is now offering a Master of Science degree in biotechnology at its Rockville, MD campus. The program is part-time and requires four core courses in chemistry and biology plus six electives. For more details please call 301-294-7080.

## **IN CASE YOU WEREN'T THERE**

♦ "Naturally Occurring Substances in Traditional and Biotechnology-Derived Foods: Their Potential Toxic and Antitoxic Effects" was the focus of a symposium and workshop that took place March 9-11 in Irvine, CA. It was sponsored by the National Academy of Sciences' Food and Nutrition Board and USDA's CSRS. According to OAB Deputy Director Daniel Jones, the workshop focused on both



identifying issues and setting research goals. One goal cited was to develop gene probes for plants that are resistant to mycotoxins, toxic substances produced by fungi that grow on plants. One of the key issues discussed was working out a balance between removing toxicants from plants to ensure human food safety without compromising a plant's resistance to pests.

## NEW PUBLICATIONS

♦ *Plant Biotechnology*. Edited by M. Fowler, G. Warren, and M. Moo-Young. Published by Pergamon Press, Oxford, England. February 1992. To order call 1-914-345-6467 or fax your inquiry to 1-914-592-3625.

## UPCOMING MEETINGS

**Apr. 10-16:** "Crop Improvement via Biotechnology: An International Perspective." Keystone, Colorado. For details please write to Keystone Symposia, P.O. Box 2156, Dillon, CO 86435.

**Apr. 23-25:** Biotechnology Science and Commercial Applications. Hilton Head Island, SC. Call Barbara Cole at Patent Resources Group Inc. at 202-223-1175.

**Apr. 27-28:** Tenth Annual ATCC Biotechnology Patent Conference. Washington, DC. Sponsored by the American Type Culture Collection. Please call 301-231-5566 for details.

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**May 11-14:** Second International Symposium on the Biosafety Results of Field Tests of Genetically Modified Plants and Microorganisms. Goslar, Germany. Call the OAB at 703-235-4419; Fax: 703-235-4429.

**May 17-20:** The Association of Biotechnology Companies' Sixth International Biotechnology Meeting. San Diego, CA. Call 202-234-3330; Fax: 202-234-3565.

**May 27-29:** "Animal Biotechnology: Challenges and Opportunities." College Station, Texas. The meeting is sponsored by the National Agricultural Biotechnology Council. Call 607-254-4859; Fax: 607-255-2428.

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**June 14-17:** 1992 International Biotechnology Conference on Food Biotechnology. Baltimore, MD. For more information send a fax to Laura Kurie at 301-913-0351.



**June 20-24:** "Molecular Crop Agriculture for the Pacific Rim" is the topic of the first conference in a series of the University of California, Davis-Pacific Rim Food and Agricultural Biotechnology Conference Series. Sacramento, CA. For details call Carolyn Norlyn at 916-757-3331; Fax: 916-757-7943.

**June 20-25:** 1992 World Congress on Cell and Tissue Culture. Crystal City, VA. For details please call 410-992-0946.

**June 24-26:** Corn Utilization Conference. St. Louis, MO. Co-sponsored by the National Corn Growers Association and Cibby-Geigy Seed Division. For more details call 314-275-9915 or write to National Corn Growers Association/Corn Utilization Conference IV, 1000 Executive Parkway, Suite 105, St. Louis, MO 63141.

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**Aug. 16-21:** Ninth International Biotechnology Symposium and Exposition entitled "Harnessing Biotechnology for the 21st Century." Crystal City, VA. Hosted by the American Chemical Society. For details call 202-872-4485; Fax: 202-872-6067.

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**Sept. 24-25:** Sixth Forum for Applied Biotechnology. Brugge, Belgium. Call for papers. Organized by the faculty of agricultural sciences of the University of Gent and by the Regional Development Authority of West Flanders.

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*Biotechnology Notes* is written by Marti Asner, public affairs specialist in USDA's Office of Agricultural Biotechnology. Suggestions for future issues are always appreciated and may be sent to USDA/OAB, Room 1001, Rosslyn Plaza East, 14th and Independence Ave., S.W., Washington, DC 20250-2200. Phone: 703-235-4419; Fax: 703-235-4429.

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